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10/676,587	10/01/2003	Uwe-Jens Krabbenhoft	HK-771	7984

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EXAMINER	
CHENG, PETER L	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/676,587	KRABBENHOFT, UWE-JENS	
	Examiner	Art Unit	
	Peter L. Cheng	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☒ Claim(s) *4-8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 October 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. To distinguish the instant application's invention from the invention of **US Patent 6,775,030 B2** which shares a common inventor, teaches the "second printing process adaptation" cited in the instant application and has a similar title, "METHOD OF ADAPTING A PRINTING PROCESS WHILE MAINTAINING *THE* BLACK BUILD-UP", it is suggested that the title of the instant application, "METHOD OF ADAPTING A PRINTING PROCESS WHILE MAINTAINING BLACK BUILD-UP", be changed to more clearly indicate the invention to which the claims are directed.

Claim Objections

2. Claim 5 is objected to because of the following informalities:

- **Lines 3 - 4:** for clarity, suggest adding parentheses to show order of operation; that is, "**s(C1, M1, Y1) = (C1 x C1) + (M1 x M1) + (Y1 x Y1)**";

3. Claim 6 is objected to because of the following informalities:

- **Line 4:** for clarity, regarding the parameter "**T**" in the equation for the weighting function f(C1, M1, Y1), suggest adding a description such as "where T is a limiting factor ...";

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by **KONDO [US Patent 6,891,649 B1]**.

As for claim 1, KONDO teaches a method for producing a printing process adaptation with which color values of a first printing process

[Fig. 1 color values CMYK for "printing machine" **12]**

are converted into color values of a second printing process

[Fig. 1 color values C'M'Y'K' for "printer" **16]**

so that black build-up of the first printing process being substantially transferred into the second printing process and *visual impressions* of printed colors in the first and second printing processes being substantially identical

[Fig 2. illustrates the "first printing process" colors **C** (cyan), **M** (magenta), **Y** (yellow) and **K** (black) which are converted to the "second printing process colors **C'** (cyan), **M'** (magenta), **Y'** (yellow) and **K'** (black). KONDO cites, "A major object of the present invention is to provide an apparatus for generating a proof which agrees with evaluations and does not make the observer feel discrepancies when a proof of an image to be generated by a first device is produced by a second device and evaluated"; **col. 2, lines 22 - 26]**,

which comprises the steps of:

performing a first printing process adaptation *without maintaining the black build-up* for transforming the color values of the first printing process into *transformed color values* of the second printing process

[Fig. 2, conversion of input CMYK data to output C'M'Y' data by means of the "printing profile" **22,** "printer profile" **24,** and "K gradation conversion table" **26.** The conversion of input CMYK data to output C'M'Y' data through "printer profile"

24 *does not maintain the black build-up as it only produces chromatic colors*, C'M'Y'.

"The printing profile 22 is a conversion table for converting color data D composed of printing image data C, M, Y, K into colorimetric data L*, a*, b* in the CIE colorimetric system which are device-independent data"; **col. 4, lines 63 – 66.** "A plurality of reverse conversion tables LUT(LabK') → C'M'Y') ... are stored as the printer profile 24"; **col. 5, lines 44 – 46];**

performing a second printing process adaptation *while maintaining the black build-up* for transforming the color values of the first printing process into *further transformed color values* of the second printing process

[Fig. 2, "K gradation conversion table" **26** contains further transformed color values of the first printing process to the second printing process. "The K gradation conversion table 26 is established such that the colorimetric value of a printed material composed of only the printing image data K is equalized to the colorimetric value of a proof composed of only the proof image data K'"; **col. 5, lines 50 - 54];**

and performing a third printing process adaptation for transforming the color values of the first printing process into *additional transformed color*

***values* of the second printing process by performing a weighted averaging of the transformed color values of the first printing process adaptation and of the further transformed color values of the second printing process adaptation**

[The third printing process adaptation combines the first and second printing adaptations. "The color conversion table generator 18 combines the printing profile 22, the printer profile 24, and the K gradation conversion table 26 ..., thereby generating a color conversion table with K saved for converting the color data D comprising the printing image data C, M, Y, K into the color data D' comprising the proof image data C', M', Y', K'"; **col. 5, lines 56 – 62.** The "additional transformed color values" from the "printer profile" **24** and "K gradation conversion table" **26** *are weighted according to the input colors CMYK*.

Achromatic colors, that is, those appearing white, gray or black, and those which are close to being achromatic, would be transformed with a higher weighting of the second printing adaptation. Conversely, chromatic colors would be transformed with a higher weighting of the first printing adaptation.]

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over **KONDO [US Patent 6,891,649 B1]** in view of **SCHWEID [US Patent 6,529,291 B1]**.

Regarding claim 2, KONDO *does not specifically teach* the method according to claim 1, which further comprises

carrying out the weighted averaging with a weighting function f(C1,M1,Y1) derived from a proportion of chromatic printing inks in colors of the first printing process.

SCHWEID teaches a method of converting colors which "provides a smooth transition from a full color to full neutral, and generates an image where a single switch point does not exist"; **col. 7, lines 61 - 64.** Instead, "depending on the value of an incoming neutral tag for a pixel, varying weighted output averages of the color conversion table 32 and TRC 38 are generated"; **col. 6, lines 28 - 30.**

Tone reproduction curve (TRC 38), as disclosed by SCHWEID, corresponds to KONDO's "K gradation conversion table 26". Color conversion table 32, as disclosed by SCHWEID, corresponds to KONDO's "printer profile 24".

Furthermore, SCHWEID discloses that the "weighting function" depends on the composition of the input colors. SCHWEID cites, "If a full color page is to be rendered, then the color conversion table 32 would be fully used"; **col. 6, lines 63 - 65.**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of SCHWEID with those of KONDO to provide a smooth transition from a full color to full neutral color by use of a weighting function

Regarding claim 3, KONDO *does not specifically teach* the method according to claim 2, which further comprises:

> **allocating a higher weighting factor to the colors of the first printing process with a high proportion of the chromatic printing inks;**

and allocating a lower weighting factor to the colors with a low proportion of the chromatic printing inks.

However, as noted for claim 2, SCHWEID teaches a method whereby colors that contain a higher content of chromatic colors are transformed mainly from a conversion table that does not maintain the "black build-up", and those colors that contain a lower content of chromatic colors are transformed mainly from a conversion table that does maintain the "black build-up".

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of SCHWEID with those of KONDO to provide a smooth transition from a full color to full neutral color by use of a weighting function.

Response to Arguments

1. Applicant's arguments filed 10/29/2007 have been fully considered but they are not persuasive.

With respect to applicant's argument that KONDO

*does not disclose **two distinct printing process adaptations** but only one; this adaptation only shows a transformation of color values CMYK **while maintaining the black build-up**;*

*and the K gradation conversion table (26) just transforms a K value of the first printing process into a K' value of the second printing process; a complete printing process adaptation must transform **all color values** of a first printing process into color values of a second printing process;*

With respect to applicant's argument that SCHWEID

*does not show a combination of two independent printing process adaptations, which must contain instructions for **all of the printing color values** CMYK by themselves, as is required in claim 1 of the instant application*

have been considered.

In reply:

As noted in the prior art rejection, KONDO discloses in **Fig. 2** two distinct printing process adaptations. A first adaptation by means of a "printing profile" **22** coupled with "printer profile" **24** which transforms "CMYK" (i.e., cyan, magenta, yellow, black) color values of a "first printing process" to "CMY" color values of a

"second printing process", and a second adaptation by means of a "K gradation conversion table" **26** which transforms "K" values of a "first printing process" to "K" values of a "second printing process".

Clearly, the first adaptation does not "maintain the black build-up" since "printer profile" **24** does not produce a value for "K". In like manner, the second adaptation does "maintain the black build-up" since it produces a value for "K".

That is, the claims as currently written *can read on KONDO's prior art* which similarly transfers the black build-up of the first printing process into the second printing process so that "*visual impressions* of printed colors in the first and second printing processes" appear substantially identical **["***A major object of the present invention is to provide an apparatus for generating a proof which agrees with evaluations and does not make the observer feel discrepancies when a proof of an image to be generated by a first device is produced by a second device and evaluated***'; col. 2, lines 22 – 26]**.

In addition, claim 1 does not refer to "**all color values**" but rather cites "for transforming "**the color values**" of the first printing process". Certainly, both KONDO and SCHWEID teach transforming "the color values of the first printing process into transformed color values of the second printing process".

Allowable Subject Matter

9. Claims 4 – 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter L. Cheng whose telephone number is 571-270-3007. The examiner can normally be reached on MONDAY - FRIDAY, 8:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Y. Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

plc
January 16, 2008

KING Y. POON
SUPERVISORY PATENT EXAMINER